

In the Claims:

1. (Previously Presented) An under voltage detection (UVD) circuit for monitoring a supply voltage, the circuit comprising:

a comparator for generating a shortfall signal indicative of a shortfall of the supply voltage in relation to a reference voltage, and

an integrator for time-integrating the shortfall signal to form an integrated signal, wherein the output of the integrator is used to generate a reset signal for resetting a microprocessor.

2. (Original) A UVD circuit according to claim 1 further including a discriminator circuit for receiving the integrated signal and at least one further output of the comparator, and generating a reset signal using the integrated signal and the at least one further output.

3. (Original) A UVD circuit according to claim 2 in which the discriminator circuit is arranged to receive a control signal, the discriminator circuit further comprising a switch controlled by the control signal for determining whether the reset signal is generated based on the integrated signal or the at least one further output signal.

4. (Currently Amended) An apparatus ~~microprocessor~~ comprising:

microprocessor circuitry;

an under voltage detection (UVD) circuit that includes a comparator for generating a shortfall signal indicative of a shortfall of ~~[[the]]~~ a supply voltage in relation to a reference voltage, and an integrator for time-integrating the shortfall signal to form an integrated signal, wherein the output of the integrator is used to generate a reset signal for resetting the

microprocessor circuitry, and

reset means arranged to receive the reset signal output by the UVD circuit and according to its value to initiate a reset of the microprocessor circuitry.

5. (Previously Presented) A method of monitoring a supply voltage including:

generating a shortfall signal indicative of a shortfall of the supply voltage in relation to a reference voltage;

time-integrating the shortfall signal to form an integrated signal; and

generating a reset signal using the shortfall signal, wherein the reset signal is for resetting a microprocessor.

6. (Previously Presented) The method of claim 5 and further comprising resetting the microprocessor with the reset signal.

7. (Currently Amended) The apparatus ~~microprocessor~~ according to claim 4 wherein the UVD circuit further includes a discriminator circuit for receiving the integrated signal and at least one further output of the comparator, and generating a reset signal using the integrated signal and the at least one further output.

8. (Currently Amended) The apparatus ~~microprocessor~~ according to claim 7 in which the discriminator circuit is arranged to receive a control signal, the discriminator circuit further comprising a switch controlled by the control signal for determining whether the reset signal is generated based on the integrated signal or the at least one further output signal.

9. (New) An under voltage detection (UVD) circuit for monitoring a supply voltage, the circuit comprising:

a comparator for generating a shortfall signal indicative of a shortfall of the supply voltage in relation to a reference voltage, and

an integrator for time-integrating the shortfall signal to form an integrated signal, wherein the output of the integrator is used to generate a reset signal for resetting a microprocessor, the UVD circuit further including a discriminator circuit for receiving the integrated signal and at least one further output of the comparator, and generating a reset signal using the integrated signal and the at least one further output, and wherein the discriminator circuit is arranged to receive a control signal, the discriminator circuit further comprising a switch controlled by the control signal for determining whether the reset signal is generated based on the integrated signal or the at least one further output signal.

10. (New) An apparatus comprising:

an under voltage detection (UVD) circuit that includes a comparator for generating a shortfall signal indicative of a shortfall of a supply voltage in relation to a reference voltage, and an integrator for time-integrating the shortfall signal to form an integrated signal, wherein the output of the integrator is used to generate a reset signal for resetting the apparatus; and

reset means arranged to receive the reset signal output by the UVD circuit and according to its value to initiate a reset of the apparatus,

wherein the UVD circuit further includes a discriminator circuit for receiving the integrated signal and at least one further output of the comparator, and generating a reset signal using the integrated signal and the at least one further output,

in which the discriminator circuit is arranged to receive a control signal, the discriminator circuit further comprising a switch controlled by the control signal for determining whether the reset signal is generated based on the integrated signal or the at least one further output signal.